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THE GENESEE FARMER.

SATURDAY, JAN. 17, 1835.

On the Bot Fly.

The judicious remarks of our friend W. G. on the bot fly, at page 404 of our last volume, made us recollect the subjoined article on this subject by Professor Eaton, and which was published about six years ago in the New-York Farmer. We do not discover in it however, any proof that "the leg nitter" is more innocent or harmless than "the throat nitter," except at the moment of oviposition; and we rather incline to the opinion that in the horse's stomach, the progeny of both are "hale fellows well met;" for though the nits of the former are deposited at a greater distance from the horse's mouth in his ordinary attitudes, than those of "the throat nitter," yet it is well known that when the horse's leg itches, as it may well do when the young larvæ are hatched out and begin to crawl,—the horse will put down his head and scratch it with his teeth. In this way they may readily enter his mouth.

We believe that both species are *peculiar to the horse*; and if we are correct in this opinion, both must have been imported from the Eastern Continent, along with that noble animal, and most probably in his stomach.

We have not seen any subsequent paper on this subject by Professor Eaton.

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"While preparing a Zoological Text Book for students, I had occasion to examine the Nitter with considerable attention in the summer of 1826. The *genus* to which this fly belongs contains more than a dozen *species*. Two species are common about Troy, N. Y. and probably in all the Northern States, which I will here describe.

CLASS—INSECTA. ORDER—DIPTERA.
GENUS—ŒSTRUS.

"GENERIC CHARACTER: *Antennæ* (horns) disjointed, very short, sunken; *face* broad, depressed, vesicular; *mouth* a simple orifice; *feelers* two, two jointed, sunken; *tail* inflexed beneath.

"*Œ. Equi*, (leg nitter): *wings* whitish with a black band in the middle and two dots at the tip.

[OBSERVATIONS.] "Deposits its eggs on the hairs of horses' legs, in the month of August. From observations made during the three last summers, I believe this species to be harmless. I do not believe the bot is ever caused by it.

"*Œ. Veterinus*, (throat nitter, bot-fly): *wings* without spots; body iron-rust color; sides of the thorax and base of the abdomen furnished with white hairs.

[OBSERVANIONS.] "A little smaller, and much more agile than the leg nitter. Deposits its eggs in the skin under the throats of horses in the month of September, and with them an acrid liquor which gives the horse the pain of a bee's sting at the instant of contact: hence this swift-winged species is the dread of horses.

"So far I think I am justified in giving the natural history of this insect from personal observations. One further trial is necessary to complete my proposed account of it. This I have not been able to complete; and take this method to ask the aid of some of the readers of the Farmer. Whoever has an opportunity to see the Bot in the recent *feces* of a horse, should put a quantity of it into a close tin or wooden box of the capacity of a quart or two, and keep it in a warm place, until some of the larvæ become flies. Then determine the species, by accurately comparing them with the description here given. Should it prove to be the species *veterinus*, we could safely adopt the following conclusions:

1. "That the Nits deposited in the skin under the throats of horses, become minute larvæ (maggots), and make their way into the passage to the stomach folds, until they are of a size to destroy that organ, unless they are passed off by some fortunate cause.

2. "Should it be thus demonstrated that the Bot is the larvæ of the throat nitter, common sense would suggest an effectual preventive. A piece of oil-cloth fastened under the throat, for three or four weeks, commencing the last week in August, must be a perfect defence."

Sheep and Cattle.

In publishing the following, we cannot refrain from repeating a remark made to us a few days since, by an intelligent farmer of this county, who has a fine herd of Devons, and to which he gives a decided preference over all other breeds. In conversing on the merits of the different breeds of cattle,—"I consider it," said he, "of but little consequence what breed is raised by our farmers, so long as they are managed in the wretched manner of most of the cattle in this country—they are neither fed nor housed as they should be; and my brother farmers not only lose the profits which they might and ought to make on their stock, but they absolutely lose money by raising cattle." There is too much truth in this remark, and we agree with the gentleman in the opinion that the introduction of improved breeds of cattle among those who but half feed their stock, will be of but little use; and we would add to the request contained in the annexed, that we should be pleased to have the readers of the Farmer furnish us with their opinions as to the best mode of raising cattle, the cost and manner of feeding them in summer and winter, and the profits to be derived from this branch of husbandry.

"As it now a season of comparative leisure, I wish your subscribers would give their views on the two following subjects, together with the results of their own experience, viz:

1. Which is the most profitable breed of sheep to raise in this state; and

2. What breed of cattle will be the most profitable to farmers generally.

I think the winter cannot be better employed than in giving these two subjects a thorough investigation. In this way a fund of valuable information may be obtained, which will be of great service to farmers generally. I hope no one will refuse to contribute his mite, for surely no farmer is so ignorant as not to be able to tell what he knows of his own stock."

Horticultural Register.

Mr. FESSENDEN, the indefatigable editor of the New-England Farmer, issued on the first of the present month, a work with the above title, which is to be continued monthly. It "will be conducted in the manner of the London Horticultural Register, and of Loudon's Magazine. The department of Horticulture, embracing more particularly that of Fruits, will be aided by a gentleman of eminent knowledge and correctness as to their nomenclature; and that of Vegetable Gardening, will be conducted by the Editor. That of Floriculture by a professed Florist." Each number to contain 40 pages, octavo, at $2 a year. We subjoin a list of the contents of No. 1:

Introduction—On the Importance of Cultivating good Fruit—New Fruit—Cultivation and Protection of Plants—On the Grape Vine—Eschscholzia Californica—Hyacinths and other Flower Roots—Clarkea Pulchella—Kalmia Latifolia—On the Cultivation of Celery—Coiling system of Cultivating the Vine in Pots—The Dahlia—Cropping Borders in which Fruit Trees grow—Fruit on Pear Trees—On Growing Gooseberries—New method of writing on Zinc—Purple Broccoli from Slips—Cultivation of Onions—Potatoes—Premature Shrivelling of Grapes—Officers of the Massachusetts Horticultural Society.

Winter Flowers.

(*In a letter of the 29th ultimo.*)

Who ever heard of flowers in sleighing time, except in Green Houses or sitting rooms? Yet such things are, even in this frosty climate. In a covered border which is exposed to fresh air every day, unless the weather be intensely cold, I have the Christmas Rose (*Helleborus niger*) blooming and preparing to bloom, profusely. From only one root, I counted more than twenty flower buds, nearly all ready to open with the first warm sunshine. No native plant of this region would venture to show its blossoms at this season; and therefore we must look for its habitat under milder skies. It is indigenous to Austria.

These flowers, three inches in diameter, reddish on the outside and white within,—make a fine appearance. A cold night indeed, prostrates them by taking out all the stiffening from their stems; but when the temperature rises, they rise; and fall again, when it falls,—though not with that distinctness and precision which would be requisite in a good thermometer. I have had the same flower to continue in bloom nearly five months,—that is, from some time in autumn until the opening of spring.

Live Fences.

From an article on this subject in the January number of the Cultivator, we select the following:

The subject of live fences is one of increasing importance to the agriculture of our country. We have many champaign districts of choice land, particularly in the west, and independent of prairy tracts, where there is not likely long to be a reservation of much timber ground, and where there is few or no stone to construct fences. In those districts fencing materials will soon become extravagantly high, and the inhabitants seem to be threatened with the alternative, of either dispensing with enclosures, as in France, or of resorting to live fences, as in England. The latter is decidedly preferable, not only to open fields, but to dead fences, unless in districts where fencing materials are abundant and cheap.

Caleb Kirk, of the state of Delaware, a man of the highest reputation for veracity and practical knowledge in husbandry, published some years ago, in the American Farmer, several numbers on hedging, in which he gives the result of nearly 20 years successful experience. In 1819 he states the actual cost of 1,000 feet of an efficient hedge fence as follows:

1,000 plants, planting and care first year,	$8 50
Dressing and care of plants six years following,	5 00
Expense 7th year for stakes, splashing, &c.	11 25
Expense six following years,	4 50
Total expense for thirteen years,	$29 25
The posts and rails for 1,000 feet of fence are stated at	75 00

Showing a gain, in favor of the live fence, of $45 75 in the thirteen years, besides the advantage of the live fence being permanent,—as good as new,—while the dead fence would have gone to decay, and required a new expenditure to rebuild it. In 1832, when Mr. Kirk's judgment had been corrected by four years further experience, he says, "I find that forty cents a rod will complete the raising to a mature age, and one cent a rod will fully maintain for ever after, if duly attended to and applied with judgment. No failure has ever appeared, except some local cause is present; therefore durability is now well established."

If by "hedge thorn," is meant the English hawthorn (*Cratægus oxyacantha*) our decided opinion is that it will not answer in Ohio, as it does not do well here, in a latitude nearly parallel. We have given it a fair trial, and after patiently nursing it seven years, abandoned the hope of success, and dug up a hedge row of nearly a half a mile of it, and substituted other plants. Neither our summers nor our winters seem suited to its growth and preservation. The yellow locust is wholly unfit for hedges, from the fact that it produces innumerable sprouts from its roots, which would disfigure the hedge, and seriously encroach upon the fields. Yet we do not know of a tree which it would be more valuable to plant upon the western prairies, for wood and timber, than the yellow locust. The growth is rapid, it propagates itself, and it affords a valuable material for fence posts, mill works and ship building. It will attain a maturity fit for these purposes in twenty five years from the seed. But the thorns of our country afford excellent materials for live fences, particularly in the districts where they are found growing naturally. This we state as well from personal experience and observation, as from the information of others. In the middle states we have seen good hedges of the Virginia and Newcastle, or cockspur thorns, and we have a promising hedge composed of several indigenous kinds, gathered from the woods and pastures. But the great difficulty is in managing our hedges well. Our own people have as yet but little practical knowledge on the subject, and too many of the foreign laborers, who profess a knowledge on this subject, are mere quacks at the business of managing them. Besides, our climate differs from that of Great Britain, and demands a different culture from that which succeeds there. We have more cold, more heat, more drouth. The ditch and bank will not do here, nor is it desirable that it should, as it causes a waste of ground, is unsightly, and is too often a nursery for noxious weeds. A bank and ditch require a width of eight or ten feet, while a simple hedge does not occupy more than two or three feet.

It is believed all the species of native thorn will answer for hedges, as well as many others of our native shrubs and trees. The Bostonians speak well of the buckthorn, though we have never seen it assume any thing more than an ornamental appearance,—nothing like a barrier to cattle. We have planted the honey locust (*Gleditschia triacanthos*) as a material to experiment upon; and so far our confidence of success remains unimpaired; though we are not yet prepared to speak with confidence of the result. The best evidence of our confidence in it is furnished by the fact, that we have now a mile or two of hedge row of the plants growing, planted in four or five successive years. The principal fear is that it may grow too large,—an objection which will not apply so forcibly in Ohio, where land is abundant, and where the level nature of the country renders shelter desirable in winter. Yet we think, from our manner of training, the nearness of the plants, and by careful attention to clipping, when the growth of the hedge requires it, we can keep it within reasonable bounds. The honey locust, when cut in, does not throw out numerous shoots, like the thorn, but the principal growth is confined to a single stem. Our remedy for this defect is, to bend down and lay in the plant at a uniform hight, when the stocks are from one to two inches in thickness, and to repeat laying the new growth every second or third year till the horizontal barrier is four to five feet high. The tops are wattled to the right and left alternately, of the adjoining plants; and if the top is not depressed below a horizontal position, it continues to live and grow, and sends up shoots from nearly its whole length. The hedge of course becomes firmer and stronger every year.

We will close our remarks by advising Mr Lockwood and his neighbors, to collect without delay, haws or seeds of the indigenous thorns of their neighborhood, and seeds of the honey locust, which we believe is a native of their forests, and to sow them in the spring in beds of good earth. The first will not come up till the second year, and many seeds of the latter will not germinate in a shorter time. Keep the seed beds free from weeds, and after two year's growth, the plants will be fit to put in a hedge row. They may also collect in the spring, from the woods, plants of the thorn, of any moderate size, say from the eighth of an inch to two inches thick, saw off the tops near the roots, and having prepared the ground well, make a trench on the site of a desired fence, and plant the roots one foot apart.

Labor-Saving Machine.

We copy the following from the New-Jersey Advocate:

"An important improvement in agricultural labor-saving was wonderfully displayed in our presence a few days since, on the farm of Cornelius Baker, Esq. situate on the main road from this place to Woodbridge. The machinery is fitted up in the spacious barn, (60 feet by 30,) recently erected by Mr. Baker. In the cellar, at one end, which is 32 feet square, is placed the horse power, which moves the several machines occupying the 1st and 2d stories of the building, and which consists of a thrashing machine, one pair of two feet Burr stones, and a straw cutter. The accuracy with which the thrashing machine done its duty really astonished us—separating as it did the wheat from the straw and chaff at one operation. Having frequently witnessed the use of the flail in beating out grain from the husk or pericarp, our astonishment was the more excited in gazing on this labor saving thrasher, which, with the greatest ease can thrash one hundred bushels of wheat per day.

"The burr stones in their "wonted round," performed remarkably, and we may say, industriously, well, throwing out meal sufficiently fine for horse feed, but can be so altered, we learn, as to furnish flour, &c. fit for family use.

"Of the straw cutter, however, we must acknowledge ourselves incompetent to the task of doing it justice, that is by any *explanatory* remarks which we may offer—suffice it to say, it commanded the admiration of all present, and there were some gentlemen among the visitors whose information touching such matters is as far above ours as conception is possible. We saw it in motion for the space of forty minutes, and in that time it cut from about sixty-five to seventy-five bushels of feed, consisting of hay, straw, and corn-stalks, in so satisfactory a manner, that we venture to say, there is not a "brindle" within the purlieus of our village but would scorn to turn up her nose at such a delectable desert.

"The whole machinery being new, more power was used on this occasion than will be hereafter necessary; three horses being amply sufficient for thrashing and grinding, and one to drive the cutter.

"Among the many advantages to be derived from such an improvement, in thrashing, &c. we will remark—

"1st. It will cause a saving of from 5 to 20 per cent. which in the ordinary modes is left in the straw.

"2d. When the price of grain is high, a crop can be prepared for market in a day or two.

"3d. It saves a great deal of time that would be profitably employed about other work, and especially enables a farmer to prepare his seed wheat in a busy season of the year.

"We have given a hasty sketch of the machinery—but forgot to mention that the machin-

ist is Mr. John Johnson, of New York, who on this occasion, has proved himself worthy of the task he has accomplished, and given entire satisfaction to the gentleman by whose munificence and spirited exertions, the machinery was erected.

"To those farmers who desire to inspect a machine sufficiently capable of cutting in half an hour straw enough to last four horses a fortnight, and cut corn stalks into pieces no bigger than a "York Shilling," this offers a fair opportunity, and we take it upon ourselves to say, that Mr. Whitney, who resides on, and has the farm in charge, will give any and every information within his power pertaining to this justly and truly styled 'Labor-saving machinery.'"

Gen. Dearborn.

It will be seen by the following letter, that Gen. H. A. S. Dearborn, the gentleman who has presided for a number of years over the Massachusetts Horticultural Society, with great honor to himself and benefit to the Society, has resigned his station, and is about removing to the "Far West:"

To Zebedee Cook, Jr. Esq.

My Dear Sir,—As I shall soon remove to the far West, it becomes necessary, that I should resign the office of President of the Massachusetts Horticultual Society, which I now do, and will thank you to announce it, at the next meeting of the members, with assurances of my grateful sense of the obligations I am under, for the distinguished honor they have so repeatedly conferred upon me.

Wherever I may dwell, or whatever may be my condition in life, I shall cherish, as one of the dearest reminiscences, my very interesting, instructive, and happy connection with an institution, which is destined to become one of the most useful and important in our country. Already have many of the advantages which it was anticipated would be derived from it, been so far developed, as to leave no doubt of complete success. A foundation has been laid so broad, deep, and successfully, as to insure the realization of all our hopes, in every department of Horticulture.

As an Experimental Garden is of indispensable consequence to your prosperity, nothing should be neglected, which is calculated to render that of Mount Auburn equal to any on the Globe; and to make it speedily beneficial to the society and the country, and at the same time appropriately ornamental, as connected with the Cemetery Compartment of the establishment, allow me to recommend, as a primary measure, that Seminaries be formed this autumn and the next spring, of all the varieties of fruit, forest and ornamental trees and shrubs, which will flourish in our climate. This being accomplished, Nurseries can be established, for propagating every kind of foreign and native fruits, with such care and sureness of identity, as to preclude the possibility of those vexatious errors, in *name* and *character*, to which we have hitherto been subjected, as to the several varieties of each species.

With my best wishes for the triumphant advancement of the Society, and the happiness of all its members, I offer, my dear sir, assurances of my sincere esteem and friendship.

H. A. S. DEARBORN.

From the Vergennes Gazette.

Potatoes.

The following is the result of some experiments I made during the present season in growing *Potatoes*.

Presuming the produce would be such as to partake too much of the marvellous for general belief, and some small risks having been taken on the result; to place it beyond the reach of doubt or contradiction, it was agreed to appoint Samuel Willson, Esq., one of the Common Council of the city, and Mr. R. Stowell, measurer, to superintend personally the measuring of the ground, the digging of the potatoes and the measuring of them in the most liberal manner, giving 38 quarts to the bushel. The following was the result of the different pieces:

No. 1,	at the rate of	1361	bush.	8	quarts.
No. 2,	do.	do.	3410	do.	
No. 3,	do.	do.	2041	do.	28 do.
No. 4,	do.	do.	1654	do.	16 do.
No. 5,	do.	do.	2253	do	3 do. pr acre.

Average of the whole number of pieces, 1843 bushels 5, 133-161 quarts to the acre. The casting was performed by Benj. B. Allen, A. M. and Mr. Sidney Dunton, Mathematicians.

This may certify, that the above is a correct estimate of the rate per acre of which the several lots of A. W. Barnum, (above described by their respective numbers) produced.

Benjamin B. Allen.

Vergennes, Nov. 23, 1834.

Owing to the early drouth, my first planting, (late in April) proved a failure, producing less than half a crop. In digging some early in July, for family use, I found they had not only ripened prematurely, but had put forth shoots, a second growth. In August I discovered upon these sprouts (which had then risen to the hight of from 6 to 8 inches above the surface, assuming the top and appearance of a regular planted Potato,) small potatoes from the size of a pea to that of an ounce ball. I regret exceedingly I had not permitted a drill to have remained until the usual time of gathering in the fall; the experiment might have afforded some valuable information on the subject of growing this most useful of vegetables.

From the frequent experiments I have made, I fully believe that 1000 bushels of potatoes may be raised upon one square acre of land with less than half the expense it usually costs on four acres in the common manner of cultivating them. I would most cheerfully communicate the manner I have adopted, in planting, hoeing, &c., the result of 25 years' experience, aided by the valuable information received from others, but presume, like many useful hints daily published in our public journals, it would be reluctantly read, and readily disregarded and forgotten.

A. W. Barnum.

Vergennes, Dec. 24, 1834.

Fruits of India.

Extracts from Review of Transactions of Agr. and Hort. Soc. of India, in Loudon's Mag. for Sept.

The fleshly and pulpy fruits of Cashmere and the neighboring countries, are apple, pears, quinces, peaches, apricots, plums, cherries and mulberries. The shell and stone fruits are pomegranates, walnuts, and almonds. There are many varieties of grape vines, both of exotic and of indigenous origin. No mulberry of Europe or of Lower India, equals the sweet varieties of Cashmere. They are eaten ripe, or made into wine, vinegar or spirit. An immense quantity of oil and oil cake is made from the walnut, and the wood of the tree is said to equal that of Britain for gunstocks. It is calculated that Cashmere would supply as much walnut oil as would furnish gas enough to light all Britain. It appears that the cucumbers and melons grown in the floating gardens of Cashmere, are neither very large nor very well flavored. At a distance the smaller gardens appear like haycocks; one melon or cucumber growing on the summit, and spreading down the sides; the larger are like narrow ridges of dung made up for growing mushrooms, with rows of cucumbers or melons along the top. Floating gardens of great extent are sometimes stolen during the night, and being towed a considerable distance, and anchored along with others of a similar character, it is difficult for the owner to recognise his property.

Method of treating Grape Vines at Bombay.—The chief thing worthy of remark is the mode of giving them a kind of artificial winter. This is done by laying bare the roots after the rainy season, so as to check vegetation. They are laid bare about the 7th or 10th of October, and are allowed to remain exposed for 15 or 16 days. The vines are then pruned, and in about a week afterwards, it is observed that the buds are beginning to break; the roots are then re-covered with the soil mixed with manure, and water is given to them every morning and evening till the fruit attains its full growth. They are afterwards watered every third or fourth day, till the grapes are completely ripe. It thus appears that the length of the winter given to the vine in Bombay is about 26 days, which may perhaps afford a useful hint to the British forcing gardener. It does not appear that the product of the vines in Bombay is very great, but the gardeners have no difficulty, by means of wintering different plants in succession, in having ripe grapes every day in the year.

Mango and Peach Trees.—"No fruit in India is held in such estimation by the whole mass of its population, from Delhi to Cape Comorin, as the mango." The peach though a fine fruit, is comparatively little valued. The mango is allowed to be extremely wholesome and nutritious. There are a great many varieties of mangoes to be found in the orchards of India; but, like the peaches in the American orchards, they have been generally raised from seeds sown on the spot, and the majority of them are of very inferior quality.

Hints to Housewives.

Vessels intended to contain liquid of a higher temperature than the surrounding medium, and to keep that liquid as long as possible at the highest temperature, should be constructed of materials which are the worst radiators of heat. Thus, tea urns and tea pots are best adapted for their purpose when constructed of polished metal, and worst when constructed of black porcelain. A black porcelain tea pot is the worst conceivable material for that vessel, for both its materials and color are good radiators of heat, and the liquid contained in it cools with the greatest possible rapidity. On the other hand, a bright metal tea pot is best adapted for the purpose, because it is the worst radiator of heat, and therefore cools as slowly as possible. A polished silver or brass tea urn is better adapted to retain the heat of the water, than one of a dull brown color, such as is most commonly used. A tin kettle retains the heat of water boiled in it more effectually if it be kept clean and polished, than if it be allowed to collect the smoke and soot to which it is exposed from the action of the fire. When coated with this, its surface becomes rough and black, and is a powerful radiator of heat. A set of polished fire irons may remain for a long time in front of a hot fire, without receiving from it any increase of temperature beyond that of the chamber, because the heat radiated by the fire is all reflected by the polished surface of the irons, and none of it is absorbed; but if a set of rough, unpolished irons, were similarly placed, they would become speedily so hot, that they could not be used without inconvenience. The polish of fire irons is, therefore, not merely a matter of ornament, but of use and convenience. The rough, unpolished poker, sometimes used in a kitchen, becomes speedily so hot that it cannot be held without pain. A close stove, intended to warm apartments, should not have a polished surface, for in that case it is one of the worst radiators of heat, and nothing could be contrived less fit for the purpose to which it is applied. On the other hand, a rough, unpolished surface of cast iron, is favorable to radiation, and a fire in such a stove will always produce a most powerful effect.—*Cabinet Cyclopædia—Dr. Lardner on Heat.*

COMMUNICATIONS.

On Draught.--No. I.

BY QUERCUS.

It may be recollected that while treating upon the qualities and history of the Horse, I alluded not unfrequently to the subject of *draught*, as being an interesting topic of investigation. More recently I have had occasion to examine the subject with some care, with especial reference to canals and canal transportation. To a superficial observer, the subject promises nothing of interest; and even to more reflecting minds, it is often passed by, as a matter familiar to all, and requiring no special consideration. The application of animal power in the conveyance of property, is indeed an every day occurrence, and we are all constantly in the habit of applying principles and using expedients, for which we can give no more satisfactory reason, than that they answer our present purpose. The slightest reflection however, will readily convince us, that the use and application of *power*, in every possible shape, must involve many important principles.

I do not propose, at present, to discuss this topic in all its varied applications, nor to investigate or explain the numerous philosophical principles with which it is connected; but merely to offer some plain reflections upon the result of my inquiries; and if they shall afford any gratification to the readers of the Farmer, they are heartily at their service.

Draught, in the sense I shall here use it, is the moving of any substance, by *dragging*. The subject is usually divided into three parts; first, the *power to be applied*; second, the *substance* or *vehicle to be moved*; and third, the *channel of conveyance.*

The first of these divisions embraces a wide field of investigation, inasmuch as the application of power is co-extensive with the works of nature.

Power, in the abstract, is a mysterious and inexplicable principle, and far beyond the reach of our comprehension. Its *application* however, in all the varied operations of nature and art, and the laws which govern this application, have been subjects of philosophical investigation, from time immemorial. This must ever be the extent of scientific research; for the moment we pass these boundaries, we are lost in the contemplation of Omnipotence.

Aside from Deity, the great author of all power and motion, we know nothing of their origin or cause; and it is curious to notice, how strangely philosophers and sages have argued and reasoned on this subject, until within a few years; simply by mistaking the effect for the cause. If we reflect a moment, upon the cause of our own locomotion, we shall at once perceive, that what is usually called *animal power*, and concerning which so much has been written, as a *first cause* of motion, is after all, something we cannot fathom. When a person, from a state of perfect inaction, sets his body in motion, he exerts great *animal power*; but this is only its effect, and not the cause. Suppose a man throws a cannon ball to any given distance; he exerts great *power*, and the man is considered as the moving principle, the *cause* of the motion of the ball. But from whence does *he* derive this power?—There is nothing in bone and muscle to propel a ball any more than in a stick or stone; all are wholly inert, until some moving principle is applied. A mass of flesh exerts no power; nor does spirit apply at all, to material matter. Whence then comes this moving principle? It is not inherent in flesh and blood, nor is it the consequence of spiritual agency, for beasts, which have no spirits, exert the same power. What then is *animal power?* Here we are lost in the infinitude of Omnipotence, and are left to admire and adore that wisdom and goodness which has invested us with such mysterious and wonderful qualities. All we are permitted to do, is to apply this principle in all the various circumstances of our existence, and to investigate its effects, when thus applied.

My present object however, is only with the application of this principle to *draught*, and as there are only two kinds of power, animal and mechanical, which are as yet applied to the common purposes of draught, I shall consider only these two, in their various applications.

By *animal power*, as I have before intimated, is simply meant the moving of any given substance, by the exertion of animal strength, such as the drawing of a cart by a horse, or an ox. *Mechanical power*, is the same principle, applied by means of machinery; and usually is the effect of steam.

As much competition has arisen of late, between these two agents, by the introduction of Rail Roads, it might be an interesting inquiry to compare their respective merits, with all their attendant advantages and disadvantages; but I have neither time nor inclination for so great a task. Still it may be well, to state a few circumstances, connected with their respective operations. And before doing this, I will explain what is meant by the "force of traction," a term, which is constantly used in speaking on this subject; and for this purpose, I will avail myself of an extract from a foreign work.

"A force is most conveniently measured by the weight which it would be capable of raising; but it is not therefore necessarily applied vertically in which direction weight or gravity acts.

"If a weight of 100*lbs.* be suspended to a rope, it is clearly exerting upon this rope a force of 100*lbs.*; but if the rope be passed over a pully void of friction, and continued horizontally, or in any other direction, and then attached to some fixed point, the weight still acts upon all parts of this rope, and consequently upon the point to which it is fixed, with a force equal to 100*lbs*; and so inversely, if a horse be pulling at a rope with a force which if the rope were passed over a pully would raise 100*lbs.* the force of traction of the horse is in this case 100*lbs*. Spring steelyards being now commonly in use, we may be permitted to refer to them as affording another exemplification of our meaning. In pulling at a steelyard of this description, whether the force be exerted horizontally or vertically, the index will of course, show the same amount; and consequently, if the strength of the horse be measured by attaching the traces to one of these steelyards, the number of pounds indicated on the dial will be the exact measure of the strain the horse exerts, and the amount of strain is called the '*force of traction.*'"—In other words; a man may be able to draw or push, upon a rail way, a carriage weighing 2,000*lbs.*, while at the same time he cannot lift more than 100*lbs.* It will readily be seen, that the latter is the measure of his strength, or *force of traction*, while the former is simply the effect of it.

The force of traction of a horse, has been variously estimated by different authors, from 80*lbs.* to 200*lbs.*; but the ordinary average at a slow pace, is now rated at 125*lbs.*, over and above the power necessary to carry his own body.

The comparitive merits of horse and steam power, when applied to the conveyance of property, must depend principally upon their practicability and expense. These two points, are most conveniently tested upon rail ways; where both powers are constantly in use; and of course their practicability proved.

The annual *expense* of a horse, depends upon the interest of purchase money; the decrease of value; the hazard of loss; the value of food; harness, shoeing and farriery; rent of stabling; and expense of attendance. These are estimated in England, by Mr. Tredgold in his work on Rail Roads, at about £60 sterling, or $266,$\frac{40}{100}$; allowing the horse a power of 125*lbs.*, traveling at the rate of three miles per hour and the day's work at eighteen miles.

The annual expense of a Steam Carriage consists of the interest of first cost; the decrease of value; the hazard of accidents; the value of fuel and water; renewals and repairs; and expense of attendance. These are estimated at £51, or $226,$\frac{44}{100}$. This power is equal to a force of traction of 155*lbs.*, for the same number of miles per day as the horse, and after deducting the power necessary to move the engine. Thus it appears that the expense of the horse, is to that of a steam engine, about as 147 to 100; which shows a decided advantage in favor of steam power, when used upon rail ways. If then the power of the horse and steam engine, could always be applied to draught upon rails, we should be at no loss to determine the preferable agent; but unfortunately we are compelled to use roads as we find them; and under such circumstances, horse power presents a different aspect.

In the ordinary use of horse power upon common roads, the force of traction of the horse, and expense of keeping, will remain much the same as above stated, while those of the steam carriage, for the same purpose, must undergo considerable change. The carriage must be heavier and stronger, and of course the cost more; the expense of fuel more, and wear and tear greater, because more power will be required to overcome the varied resistance. Under these circumstances the proportionate expense of horse and steam power is estimated to be about as 115 to 100.

If this estimate is correct, there can be no great advantage arising from the use of steam power, even when the roads are good and approximate towards the smoothness of rails, unless where velocity is required at the expense of power. Ordinarily, it will be found that the horse will adapt himself so perfectly to his work, increasing or diminishing his power, as occasion or resistance may require, that the *average effect* of his power will be increased, rather than

diminished, thereby enhancing his average force of traction. On common roads, great obstructions are often presented, and constant changes of ascent and descent occur, and it is on such occasions, that horse power is decidedly advantageous.

On the contrary, a steam engine of a given power cannot increase or diminish its force to meet every little variation in the road, and it must consequently come to a dead stand, when any resistance occurs beyond its force of traction. "For instance, suppose the carriage to be advancing steadily under the effect of a force of traction of 500*lbs.*, and that a stone or rut suddenly causes a resistance, which it would require 600 or 800*lbs.* to overcome; if the impetus or momentum of the mass, be not sufficient to carry it over this obstruction, the machine must stop until some increased power be given to it."

These objections to mechanical power are however, not insurmountable, but they present such serious difficulties in practice, that some farther discoveries must be made, and some greater inducements offered, before it can come into general use.

Under such circumstances, connected with the numerous other contingencies, which seriously effect the practical application of this power, we shall readily be induced to abide by our old friend the horse, and make his burthen easy, and his labor as effective as possible. QUERCUS.

Culture of Silk in Ohio.

BY S. L.

In reply to the inquiry made in a late number of the Genesee Farmer, respecting the success which farmers have met with during the past season, in the culture of silk, it may be said, so far as this state is concerned, that the season has been very favorable, although the occurrence of a severe frost late in the spring rendered it for a while doubtful whether any worms could be saved. Our fruit was entirely destroyed except in some very favorable situations, and many fruit trees were unable to withstand its withering effects. It is believed too, that many silk worms were destroyed for want of their proper food, but generally the precaution is taken to prevent the eggs from hatching until the danger from frost is passed.

A few of my worms, which were hatched before this frost, were only saved by feeding them on the leaves of the common dandelion, (the *Leontodon taraxacum* of Botanists.) After being sustained for three weeks on these leaves they evinced some reluctance to the change to White Mulberry leaves which were then given them. They had a whitish and unnatural appearance, had grown but little, and it is believed that they would not have come to maturity and produced silk without their natural food. Their molting was considerably delayed, so that they occupied about twice the usual time in coming to maturity; but they ultimately produced silk of a quality equal to that made by the worms which were fed entirely on the leaves of the White Mulberry.

It is gratifying to observe the increased attention which is paid to this subject in Ohio. Many farmers are providing themselves with orchards of Mulberry, and preparing themselves otherwise to produce large quantities of silk whenever a market shall be created for it. It is to be regretted however, that the Chinese Mulberry is so scarce and dear, that but few are able to obtain it; although all appear to be aware of its superiority over the Italian. Would it not be a profitable business for some of your gardeners and nursery-men, to send a few plants and cuttings to this state during the present season?

The usual method of tying together small bundles of bushes for the worms to mount and spin their cocoons upon, was found not to be so convenient and useful as the following: Take a strip of plank, say eighteen inches long and three inches wide, and set in it two rows of small light sticks leaning outwards like the two sides of the letter V. Fill this rack loosely with dried oak leaves, and place it upon the table or shelf containing the worms, and they will pass between the sticks and form other cocoons among the leaves.

As these leaves afford more places suitable for the formation of cocoons, they are not so liable to be double, and as there is a larger surface of the aparatus in contact with the table, the worms can more easily find it, and therefore do not waste their strength in traveling around the table in search of it. S. L.

Champaign co., Ohio, Dec. 1834.

Brandywine Cottages.

BY POOR RICHARD.

Perhaps few of my readers have ever had the privilege of a ramble on the banks of the beautiful Brandywine, near Wilmington, Del. I will therefore tell them it is some of the most charming picturesque scenery we have in this country. I do not speak of it as an agricultural country—for it is not. But for that beautiful variety of hill, dale, woodland and waterfall, with a cottage peering here and there in its more cultivated spots—for all that is bold, wild, and luxuriant in nature's most romantic garb, it is scarcely rivaled. I might except the highland scenery on the North River, and our own Crooked Lake prospect as seen from Bluff Point, for grandeur and magnificence.

Without attempting a further description of beauties, in which I should be sure to fail, I would mention the cottages in the neighborhood of the paper mills as worthy our attention by way of useful example.

These cottages are plain buildings and are inhabited by the colony, as I might call them, of more than 100 persons who work at the mills. A few years before I saw them I was told they looked like the tenements of poor and idle people without taste or cleanliness. They now looked clean, in good repair and neatly yellow-washed outside. But what was really the charm around them, was the shrubbery and clustering of vines that gave at once fragrance and shade to the front. Each door yard was enclosed by a neat paling, whitewashed by the good woman—a few flower pots with geraniums and monthly roses were on the porch, and a dozen other flowers in the botanical catalogue were tastefully sprinkled about the yard.

Within and without gave evidence how much good taste and comfort there may be in the absence of wealth and without expense.

Now, how many wretched and squalid looking houses are there throughout our country, particularly in the neighborhood of some of our larger manufactories, that a little attention and a spark of taste might convert into neatness and even beauty. A few trees—a few flowers, a plain whitewashed fence—the path to the door graveled—the house itself whitewashed or painted with a cheap composition, are all that is necessary, where economy is consulted. Nature will do the rest.

It was remarked to me of the Brandywine Cottages, that one family set the example simply by arranging the front yard. The contrast with the rest was so soon perceptible that they all followed.

Example is very powerful. Let me advise my friends to use the same means in their own neighborhood, on a large or small scale, and in a few years it may be said of this, as it is of the country of England,—"That traveling seems to be through a flower garden."

POOR RICHARD.

Milo, Yates co., Jan. 3, 1835.

Mr. Halsy's Report Reviewed.

NUMBER ONE.

It is, I believe, generally known that within the last two or three years there have been sundry movements in this state in behalf of Agriculture. During the period thus limited, a State Agricultural Society has been instituted and incorporated by an act of the Legislature.

Encouraged by the recommendations of the parent society thus recently instituted, and still more so by executive messages, delivered to the legislature by his excellency the governor, and his predecessor in office, advising to the patronage of Agriculture by special legislative enactments, citizens in several of the counties have instituted County Agricultural Societies. They have done this in the expectation of receiving favor from the Legislature, in granting a portion of the public treasure to enable them to carry on with efficiency their plans of operation.

In the mean time, a project, originating in the councils of gentlemen distinguished for patriotism and devotion to the interests of Agriculture, for having instituted in this state a public seminary, in which, among other things necessary to constitute a liberal education, should be taught the theory of Agriculture, and the other sciences intimately connected with the theory and practice of that art. It was proposed to have connected with this establishment a Pattern Farm, together with shops and implements for mechanical operations.

This project was sent up to the Legislature for its patronage. Also, petitions from several of the counties were sent up to that body, aiming at the same objects. The subjects thus submitted to the Legislature, were referred to their appropriate committees. During the session which closed in the spring of 1833, the committee of both houses reported decisively in favor of the views of the projectors and petitioners. As the subjects were not then acted upon, they were submitted again to the Legislature at the last ses-

sion, accompanied with petitions, and referred as before.

At nearly the close of that session, Mr. Halsey, chairman of the committee, acting for the Senate on the department of Agriculture, presented to that body a report, embracing views, sentiments and conclusions, which it is believed few had anticipated. The report was adverse, *in toto*, to the views taken by his excellency the governor on the subject, and to those of the two committees which had before reported; adverse to the project of an Agricultural Seminary, or any school for the special use of Agriculture; adverse to all the prayers of the petitioners; adverse to Agricultural Societies *any where*, or under any circumstances; and adverse to direct legislation, in any manner or form, in behalf of Agriculture. In short, the motto of this committee is, "Let Agriculture alone." Thus it will be seen, that, on subjects of great national and individual importance, gentlemen of high political distinction entertain widely different opinions. The parties, therefore, are at issue. It is greatly to be desired that a competent jury may try the cause, and give a true verdict.

The committee assign reasons in support of the ground they have taken, and the conclusions to which they have come. If their reasoning is based on truth—if it is sound, and sustained by fair logical deductions—then let all men say, Amen, to their conclusions. Let the doctrine of Agricultural Societies, Seminaries, &c. which in modern times has been much inculcated, sink into merited disrepute, and cease to be agitated. But if the facts are otherwise—if the reasoning of the committee is fallacious—if they have adopted false premises, and thus been led into error—it is important that the fallacy of their reasoning, especially as it emanates from high authority, should be detected and exposed, that both the reasoning itself, and the mistaken conclusions to which it has led the committee, may fall alike harmless to the ground. In this essay, and seven others that may successively appear, it will be my object to examine Mr. Halsy's report.

The arguments chiefly relied upon by the honorable committee in support of the position they have taken, appear to be derived from precedents. They maintain, if I understand the import of what they say, that all experiments at any time instituted in this country, or any other country, to improve the condition of Agriculture by legislative enactments, or any other means, operating to produce preternatural excitements, have resulted in failures. The committee advert to past experiments in this state, and 1st, to an Agricultural Society instituted in the year 1793. It will be seen this was nearly 42 years ago, and the committee evidently intend to have it understood that the Society which was instituted at that time, failed of answering its intended purposes. They introduce this ancient institution in the following manner:

"The act to incorporate the Society for the promotion of Agriculture, Arts and Manufactures, passed March 12, 1793, created a Society composed of practical agriculturists, and men of scientific acquirements. The corporation was to continue until May, 1804, and was empowered to hold real and personal estate of the annual value of eight hundred pounds. A President, Vice-President, Treasurer, and two Secretaries, were to be elected, and the members of the Legislature were to be honorary members. In 1804, the act was revived and made perpetual. By the last mentioned act, the Society was allowed to hold real and personal estate to the yearly value of two thousand five hundred dollars."

From the historical notices thus furnished by the committee, we learn that the Society received at first a liberal charter, which was to continue eleven years and two months; and that at the expiration of the term thus limited, it was rechartered with more liberal endowments, and rendered perpetual. Of the proceedings of the Society while it operated under its first charter no information is given. After admitting that the Society had published several volumes in the form of "Transactions, Essays, &c.," and that some of its members had, as individuals, distinguished themselves for public usefulness, the committee thus close their remarks: "And yet the decease of many of the original members, the urgent calls of others to public and private business, with other causes which it is not necessary to mention in detail, induced the remaining members of the Society some years ago to have it incorporated into, and it now constitutes a department of, the 'Albany Institute' of this city."

The facts disclosed in this paragraph furnish all the evidence on which the committee rely (for they have produced no other) for their authority to report this venerable institution as having failed to render itself publicly useful. The gentlemen seem to suppose that premature death, or change in the mode of operation, is a decisive proof of an unprofitable pre-existence. And yet the history of men, and other animal existences, the history of states, kingdoms and empires, furnish ten thousand proofs at variance with such a supposition. Our illustrious Clinton died prematurely. The immortal Washington did not attain to longevity. Thousands and tens of thousands of illustrious personages there have been, who rendered themselves eminently useful, but did not live out half their days. These remarks are applicable to inanimate existences. They are applicable to presidences, principalities, thrones and powers. They are applicable to states, kingdoms and empires. They are applicable to public institutions indefinitely multiplied, such as have been devised for the better regulation and management of the multifarious concerns of this world. It is a dictate of common sense and common observation, that neither the usefulness of individual citizens, nor that of public institutions, can be measured by the length of time allotted to their existence.

The Agricultural Society of '93 is not, however, represented as having become extinct, but only as having undergone a metamorphosis, and to be still existing in another form, and moving in a new and different orbit. As I am wholly unacquainted with the manner of its present existence, I am content to wave this consideration altogether, and admit that some years ago the Society was dissolved. The subject of my future inquiry will be, not whether the existence of the Society was protracted to a greater length; not whether it lived out its days, or lived as long as it had been expected it would; but whether while it *did* live and exercise its chartered rights, it commended itself, by patriotic deeds and acts of public utility, as an institution useful to the community. To offer reasons rendering it highly probable, if not certain, that such were the facts, will be the work of another essay.

Bet here let me premise, that as my treatise on this subject must involve reminiscences of things and events lying considerably back in the shades of time, and as I have no public documents to guide my inquiries, it must not be expected I shall be able to do any thing like justice to the subject. Not unlikely many of our citizens are at this time wholly unaware that there had ever been an Agricultural Society in this state, until such institutions came into use under the act of 1819.

December, 1834. SENEX.

Management of Calves.

The Management of Calves is a matter of interest with the dairy farmer. The object is to fatten or rear calves in a healthful condition with the least possible expense to the dairy. We find in an article upon this subject, in the Edinburgh Quarterly Journal of Agriculture, written by Mr. Aiton, some remarks which are new to us, and which, we believe, will be useful to the dairy patrons of the Cultivator. In fattening calves for the butcher, the dairymen of Strathaven, whose practice Mr. A. describes, consider it most profitable to feed them from four to six weeks, at which age they are made to bring from £3 to £4. ($13 to $17.) Beyond this age they make but a bad return for their feed, and under it they are justly considered unfit for the market. The following is given as the Strathaven mode of feeding, and furnishes also the reasons for the practice:

"The calves are fed on milk only, with seldom any admixture; and they are not permitted to suck their dams, but are taught to drink their milk from a dish. As arguments are advanced for even the worst of practices, those who allow their calves to suck, say, that by so doing, a much greater portion of saliva is secreted, and carried with the milk into the stomach of the calf, where it promotes digestion, and accelerates the growth and fattening of the young animal. But although saliva is necessary to digestion, it can be drawn forth by placing an artificial teat in the mouth of the calf while feeding, and preventing the animal from drinking its milk too hastily, or giving it too cold. In the dairy districts of Scotland, the dairy-maid puts one of her fingers into the calves' mouths when they are feeding, and this, or any thing similar, serves the same purpose as the natural teat, in promoting the necessary secretion of the saliva. A piece of clean leather, about three inches long, and fixed to the bottom of the dish, will, when the milk is given slowly, so that the saliva may be drawn from the glands of the calf, and conveyed to the stomach with the milk, answer every purpose that sucking can serve, and still more saliva may be conveyed to the stomach of the calves. When they are not feeding, a lump of chalk is often laid within their reach, by licking which they are induced to swallow much saliva that would otherwise drop from their mouth and be lost. Calves frequently chew or suck anything that is within their reach, not for food, but to help them swallow saliva, and on that account something like a teat should be placed near them, that by sucking it they may promote the secretion of saliva, and convey it to their stomach.

"But though sucking the dam may be favorable to the calf, yet it seriously injures the cow. The calf cannot, when young, consume all the milk of a good cow, and she becomes so fond of her calf that she will not yield her milk to the dairy-maid; and unless the cow's udder is completely emptied of milk every time she is milked, the lactic secretion is gradually diminished, and the cow will ultimately run dry on that account: but when the milk is drawn from the cows and given by hand to the calves, every thing can be

regularly corrected to the advantage of the cow, the calf, and the owner of both. And when calves are reared for stock, various substitutes for milk can be gradually introduced, and the milk slowly withdrawn, without injuring the stomach of the calf by a too sudden change of food. And when calves are to be highly fed, the milk of two cows can be given them by hand-feeding, while cows will suckle none but their own calves.

"The whole secret of fattening calves for veal is to give them, after they are three or four weeks old, an abundance of milk, keep plenty of dry litter in their stalls, let them have the benefit of good air, moderate warmth, and be nearly in the dark, as they hurt themselves with sportiveness when exposed to too much light. In Holland, the best feeders keep their calves in pens or coops, in which they can stand or lie at pleasure, but cannot turn themselves round. I am not sure that such rigid confinement is beneficial.—It is necessary, however, to keep fat calves in places where they have but little light. They require to be fed twice every twenty-four hours.

"If a calf becomes *costive*, a small portion of bacon or mutton broth will give them ease; and if they begin to *purge*, a small quantity of rennet, used in coagulating milk, will cure that disease. The Scotch calves are never bled, nor infusions of linseed, oil-cake, or any other food given them, but pure milk from the cow."—*Cul.*

"Business To-Morrow,"

Said the Theban governor, as he smilingly laid by unopened the letter that would have informed him of a conspiracy against his life—"*Business to-morrow*"—the answer was his death-warrant, and he sealed it with a smile! That night he was assassinated. Whoever has read his history, and investigated the causes of great events, cannot have failed to note how often the scale of success has been turned solely by the weight of time; and yet, as if in defiance of reason and experience, how many are in the daily practice of putting off "business till to-morrow" which should be done to-day; and this, too, rather from habit than indolence. There is no subject upon which there have been more maxims established than this; no theme more fruitful to the preacher than the value of time; still the waste of it is the source of failures, poverty, and even death. Now, the business is put off till "to-morrow," and then the succor comes "too late." There is not a more universal error than procrastination; none so insidious, and none productive of more misery. None so insidious—for we often hear men descanting upon the folly of wasting time who are in the daily practice of deferring what could and should be done at once. Strange fatality! that blinds, to ruin us. This foible is common to all classes of society—the merchant puts off the insurance of his ship, which was wrecked "yesterday" till "to-morrow;" the farmer puts off his harvesting till "to-morrow," and then finds that "last night" the frost destroyed his crop—the carpenter defers building till "another day," until death approaches him with

"Your house is finished, sir, at last,
A narrow house—a house of clay,
Your palace for "another day."

Bangor Courier.

Winter Food for Cattle.

A writer for the American Farmer gives the following under the head "*Cheap Fodder.*" "Having been informed of the advantages of using the tops of Indian corn, cut as rye straw, to be mixed with potatoes or meal, as a food for horses or cattle. I have been making the experiment. I find that my cattle thrive better on the fodder than on rye straw, (*cut and used in the same manner.*) The corn stalk certainly contains a great quantity of farine substance and must be highly nutritive. Being cut and scalded with a small quantity of bran, they afford an excellent mess to milch cows. In the common way of foddering cattle with tops, the blades are greedily eaten, but stalks are wasted. But adopting the plan recommended, the whole affords a nutritive food."

The Farmer.

The farmer should have a thorough knowledge of soils, and the best and most improved methods of cultivation; he should be ready to adopt the improvements that tend to the saving of labor and expense, and the increasing of products. If there is a way to make two blades of grass grow, (and there are many such ways.) where but one grew before, he should know it, and give himself and his country the benefit of it. If a breed of stock is found, more kind for milk or fat, than he had before, his attention should be alive to the subject.

Every farmer, who has natural understanding, ought to be a well informed man, in reading and thinking, in theory and practice; such we all ought to be, and such the farmers of this country can be.—*Janes.*

Swellings.

To scatter swellings on Horses or other cattle, take two quarts of proof whiskey, or other proof spirits, warm it over coals, but not to blaze—dissolve it in a pint of soft soap—when cool, put in a bottle, and add one ounce of camphor. When dissolved it will form the liquid Opodeldoc, and is then ready for application, forming a cheap and useful remedy. When the swelling is on the leg, or any part that will receive a bandage, such bandage should be applied, and wet with the Opodeldoc.—*Bangor Courier.*

Melons.

A French periodical gives the following method of hastening the ripening of melons:—Spread on the melon and round it a thick couch of from one to two inches of pounded charcoal. Lampadius tried this plan at Friebuler in 1813, and succeeded in making melons ripen in a box of earth in the open air, during the summer of that year, in the mining district of Saxony. The surface of the earth thus covered with charcoal had at noonday a temperature of 37.50 to 47.50 of Reaumur, while at the same time the thermometer in the shade was only at from 15 to 20, and in the sun at 25 to 37.50.

THE PRIMITIVE EARTHS—are four, viz: clay, sand, lime, and magnesia. These are the only earths which enter into the composition of soils; they also enter in very minute portions into the organization of plants. Sand and clay are by far the most abundant; lime is required but in small proportion: every soil, however, is defective without it. Magnesia is found but in few soils; its place is well supplied by lime; its entire absence, therefore, is not considered any defect.

It is said that salt and water sprinkled over corn will prevent injury from the weevil.—*N. York Farmer.*

List of Payments

For the Farmer from Jan. 8, to Jan. 15, 1835.

For vol. 4.

Giles H. Holden.	Edward Robinson.
D. Pomeroy	Jason Sawyer.
Samuel M'Afee.	David S. Bates.
Augustin Sacket.	Benjamin Wright.

J. C. Brainerd.

For vol. 5.

Whiting Merry,	John Spicer.
William Yates.	L. M. Walker.
Charles Cameron.	A. Orton.
Robert B. Monell.	Marvin Leonard.
J. C. Hathaway.	Jesse Dewey.
William Ross.	Israel Skinner.
Moses A. Bunnell.	Thomas Hillhouse.
Isaac Tripp.	Elisha Chapman.
Seneca Lapham.	Lincoln Chapman.
C. W. Dey, vols. 4 & 5.	James H. Wright.
P. H. Skinner.	

To July, 1835.

Thomas J. Payne.	William H. Peck.
Wm. S. Fullerton	Richard Huson.

PRICES CURRENT.

ARTICLES.	PER	ROCHESTER. Jan. 17.	NEW-YORK. Jan. 10.
Ashes—Pot....	100lbs.	$3,40.....	$4,20 a 4,25
—— Pearl..	.....	3,60.....	5,20 a 5,50
Beeswax, yellow	lb.	0,18 a 0,20	21 a 22
Candles, mould	.....	0,11½a0,00	10. a 13
—— dipped.	.....	0,11 a 0,00	9 a 11
Cloverseed.....	.....	6½.... ...	9 .a.10
Flax, American.	.....	.....	8..a.09
Flax seed, clean	tierce	9,00a10,00	14,25a14,50
Flour, Western.	barrel	4,75.....	5,06a5,18
Grain, Wheat..	bushel	0,75a.0,00	1,04 a1,06
—— Rye....	.....	0,50.....	65.a..66
—— Oats...	.....	0,28.a..30	40.a..41
—— Corn...	.....	0,50.....	62.a..66
—— Barley..	.....	0,50.a..00	62.a..64
Hemp, Americ'n	ton	.....	100 a 120
Hops, 1st sort .	lb.	0,20.....	14.a..16
Plaster Paris...	ton	6,50 a 0,00	2,00 a2,25
Beef, Mess....	barrel	7,50 a.9,00	8,50 a 8,75
—— Prime....	.....	5,50 a 0,00	5,50 a 6,00
Pork, Mess....	.....	15,00a00,00	13,00a13,50
—— Prime....	.....	10,00.....	8,50a9,00
—— in the hog.	100lbs.	3,50 a 4,50	5,00.....
Tallow.....	.....	6,00 a 7,00	7,00 a 7,50
Hay.....	ton	9,00 a 11,00	9,75a11,20
Apples.....	bushel	50.a.100	.....

Wanted,

A QUANTITY of large white Lima Beans for which a high price in cash will be paid.

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THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.

Greece, *Monroe* co. N. Y. Sept. 13, 1834.

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No. 5 Arcade Hall, next door but one to the Post-Office.

REYNOLDS & BATEHAM, having completed their assortment, now offer to the public the best and most extensive collection of Garden, Field and Flower Seeds, ever before offered in the Western country.

Their stock is entirely new, and having been purchased directly of the growers and importers, the vitality and purity of the seeds are expressly guaranteed. Farmers and Gardeners will find a great variety of new and valuable Seeds not heretofore introduced into this section of country.

They have also an assortment of superior Horticultural Implements, Books, &c.

Merchants and others supplied with assortments of Seeds for retailing at a liberal discount.

All orders for Seeds, Fruit or Ornamental Trees, Shrubs, Grape Vines, Green-House Plants, &c. &c. by mail or otherwise, will meet with prompt attention.

Cash will at all times be paid for Grass and Clover Seed, Peas, Beans, &c. dec 9-r4tf

Book for Farmers.

NUTTALL'S Manual of Ornithology of the United States and Canada, with numerous Engravings, a volume containing 700 pages, price $2 50.

For sale by HOYT & PORTER.

The Departed Year.

I stood upon the sunless shore,
Beside oblivion's sea,
And saw its sluggish waves break o'er
The by-gone yesterday—
The last of the departed year
Join in the lapse of time's career,
The past eternity.

It was a melancholy sight,
To see it part from day,
And dim among the depths of night
Fade with his dreams away;
And dark and shapeless with it go
A thousand hopes once rich in glow,
Born in its hour's decay.

A cold thrill to my feelings taught
How much there was of mine
Gone with that year of perish'd thought,
And ill-delayed design;
A part, too, of the vital gleam
Quench'd beneath time's incessant stream,
A march towards decline.

From out those waves no palmy isle
Uprears its sunny head,
Where shipwrecked hope may light her smile;
Boundless, and drear, and dread,
The billows break without a roar,
"Nameless" is stamped upon the shore;
And "death"—there all is dead.

And love turns trembling from the sight,
Hiding his face with fear;
And beauty shrinks in pale affright,
And fame stands silent near,
And glory's laurels shrink and die,
Changeless alone one brow and eye,
But they are of despair.

All watch the last skirts of the year;
The wreck of minutes done,
In those deep waters disappear
For ever from the sun,
Leaving a dread tranquility,
As when a mighty ship at sea
Has just gone wildly down.

Sleigh Bells.

Those merry bells! those merry bells!
How many a tale their music tells,
Of gleeful laugh and loud halloo!
And upset in the drifted snow.

Swift flies the wind! but not so swift
As flies the "snow boat" thro' the drift,
Shrill sings the wind! but not so clear
As the blithe sleigh bell in the ear.

"That tuneful peal will still ring on"—
Until the latest snow be gone;
Then farewell to the merry bell,
And to the winter sports farewell!

The Stansted Somnambulist.

Our readers will recollect that a few weeks since, we introduced to their notice from the Boston Medical and Surgical Journal, an account of a wonderful case of Somnambulism and *clairvoyance*, surpassing in interest, the far-famed case of the Springfield Somnambulist. The last number of the Medical Journal contains a letter from the regularly attending Physician of Mrs Cass, the lady who is thus singularly affected, which fully corroborates in every particular the account given by Dr. Barnard.

The gentlemen who have furnished the facts in this case, the most extraordinary perhaps that has ever been recorded in the Medical books, are of great respectability, and of high standing in their profession. It is impossible that there could have been any deception in the case—and it will puzzle the casuist to decide on the cause of this singular phenomenon. This *clairvoyance*, and in some sort, *divination*, seem to set aside the laws of nature—and equals any thing which was ever advanced by the believers in Animal Magnetism.—*Boston M. Jour.*

Governors of the States.

		Elected
Maine	Robert P. Dunlap	1834
New-Hampshire	William Badger	1834
Massachusetts	John Davis	1834
Vermont	William A. Palmer	1834
Rhode Island	John Brown Francis	1834
Connecticut	Samuel A. Foot	1834
New-York	William L Marcy	1834
Pennsylvania	George Wolf	1832
Delaware	Caleb P. Bennett	1832
Maryland	James Thomas	1833
Virginia	Littleton W. Tazewell	1833
North Carolina	David L. Swain	1834
South Carolina	George M'Duffie	1834
Georgia	Wilson Lumpkin	1833
Ohio	Robert Lucas	1834
Kentucky, (*Acting*)	James T. Morehead	1832
Indiana	Noah Noble	1834
Illinois	Joseph Duncan	1834
Missouri	David Dunklin	1833
Alabama	John Gayle	1833
Tennessee	William Carroll	1833
Mississippi	H. G. Runnells	1833
Louisiana	Edward D. White	1834

Governors' Salaries.

The following tabular statement of the Governors' Salaries, the number of Senators and Representatives, and their pay per day, of each State in the Union, is taken from the American Almanac for 1835.

STATES.	Gov's salaries.	No. of senators.	No. of Reps.	Pay per day.
Maine	$1500	25	186	$2 00
N. Hampshire	1200	12	230	2 00
Massachusetts	3666 66	40	570	2 00
Rhode Island	400	10	72	1 50
Connecticut	1100	21	208	2 00
Vermont	750	none	230	1 50
New-York	4000	32	128	3 00
New-Jersey	2000	14	50	3 00
Pennsylvania	4000	33	100	3 00
Delaware	1333 33	9	21	2 50
Maryland	3500	15	80	4 00
Virginia	3333 33	32	134	4 00
North Carolina	2000	64	134	3 00
South Carolina	3500	45	124	4 00
Georgia	3000	90	185	4 00
Alabama	2000	22	72	4 00
Mississippi	2500	11	36	3 00
Louisiana	7500	17	50	4 00
Tennessee	2000	20	60	4 00
Kentucky	2000	38	100	2 00
Ohio	1200	36	72	3 00
Indiana	1000	30	62	2 00
Illinois	1000	26	55	3 00
Missouri	1500	18	49	3 00

Reigning Sovereigns of Europe.

State.	Name.	Title.	Age.
Sweden	Charles XIV.	King	70
Russia	Nicholas I.	Emperor	38
Denmark	Frederick VI.	King	66
Great Britain	William IV.	do.	69
Holland	William I.	do.	62
Belgium	Leopold	do.	44
Prussia	Fred'k Wm. III.	do.	64
Saxony	Anthony	do.	69
Brunswick	William	Duke	28
Nassau	William	do.	42
Hesse Homb'rg.	Louis	Landgrave	64
Baden	Ch. Leopold Fr.	Grand Duke	44
Hesse-Cassel	William II.	Elector	67
Wurtemberg	William	King	53
Bavaria	Louis	do.	48
Austria	Francis	Emperor	66
France	Louis Philippe	King	61
Switzerland	John J. Hess	Land'Man	
Spain	Maria Isab'a II.	Queen	4
Portugal	Donna Maria	do.	15
Sardinia	Chas. Emanuel	King	36
Tuscany	Leopold II.	Grand Duke	37
Parma	Maria Louisa	Duchess	43
Modena	Francis IV.	Duke	55
Lucca	Charles Louis	do.	35
States of the Ch.	Gregory XVI.	Pope	69
Two Sicilies	Ferdinand II.	King	29
Greece	Otho	do.	19
Turkey	Mahmoud II.	Sultan	19

United States.

POPULATION.

In 1790...3,929,827	In 1810...7,239,814
1800...5,305,925	1820...9,638,131
1830.....12,866,020.	

PUBLIC OFFICERS.

Andrew Jackson, of Tennessee, President.
Martin Van Buren, of N. York, Vice President.
John Bell, of Tenn., Speaker of House of Rep.

Cabinet and Heads of Departments.

John Forsyth, of Georgia, Secretary of State.
Levi Woodbury, of N. H. Secretary of Treasury.
Lewis Cass, of Ohio, Secretary of War.
Mahlon Dickerson, of N. J. Secretary of Navy.
W. T. Barry, of Kentucky, Postmaster General.
Benjamin F. Butler, of N. Y. Attorney General.

Elijah Hayward, Com. General Land Office.

United States Supreme Court.

John Marshall, of Virginia, Chief Justice.
Gabriel Duvall, of Maryland, Associate Justice.
Joseph Story, of Massachusetts, do.
Smith Thompson, of New York, do.
John McLean, of Ohio, do.
Henry Baldwin, Pennsylvania, do.
One vacancy.

Alexander Macomb, Major General U. S. Army.

State of New-York.

POPULATION.

In 1701.....30,000	In 1800.....586,050
1731.....50,395	1810.....959,049
1749.....100,000	1820...1,372,812
1771.. ..163,338	1825...1,616,458
1790 340,120	1830...1,918,608

PUBLIC OFFICERS.

William L. Marcy, Governor.
John Tracy, Lieutenant Governor.
Azariah C. Flagg, Comptroller.
John A. Dix, Secretary of State, and Superintendant of Common Schools.
..... Surveyor General.
Greene C. Bronson, Attorney General.

The Dead of 1834.

During the year which has just closed, our country has been called to lament the loss of the following from among her most eminent and respected citizens:

Jan. 7, at Jersey City, Hon. *Cadwallader D. Colden*, aged 65, formerly Mayor of this city and Member of Congress; Feb. 11, at Washington City, Hon. *Thomas T. Bouldin*, Member of Congress from Virginia, aged 62; Feb. 18, at Washington, Hon. William Wirt, late Attorney General of the United States, &c. &c.; Feb 21, Hon. *John Breathitt*, Governor of Kentucky, aged 50; Feb. 28, at Westchester, Pa., Gen *Isaac D. Barnard*, late Senator in Congress; July 6, at Detroit, Hon. *George B. Porter*, Governor of Michigan; July 22, in the far West, Brig. Gen. *Henry Leavenworth*, of the United States Army; Aug. 4, at Brooklyn, Hon. William Johnson, Associate Justice U. S. Supreme Court; and in September, near Elberton, Geo, Hon. William H Crawford, formerly Secretary of the Treasury, and a distinguished statesman.

Besides these, there have deceased of Members of Congress, Hon. Littleton P. Dennis, Maryland; Hon James Blair, South Carolina; Hon. Benj. Deming, Vermont; Hon. Chas. Slade, Illinois; of retired Members, Hon. John Boyle, Kentucky; Hon. David Barker, Jr. New Hampshire; Hon. Edward Lloyd, Maryland; Gen. Ebenezer Huntington, Connecticut; Hon Jonathan Jennings, Indiana; together with Hon Jonas Platt, of this State; Gen. Robert B. Taylor, of Virginia; Hon. Lucius Q. C. Lamar, of Georgia; and Hon. John T. Peters of Connecticut, who had each shared largely of the confidence and support of their fellow citizens.—*New-Yorker.*